

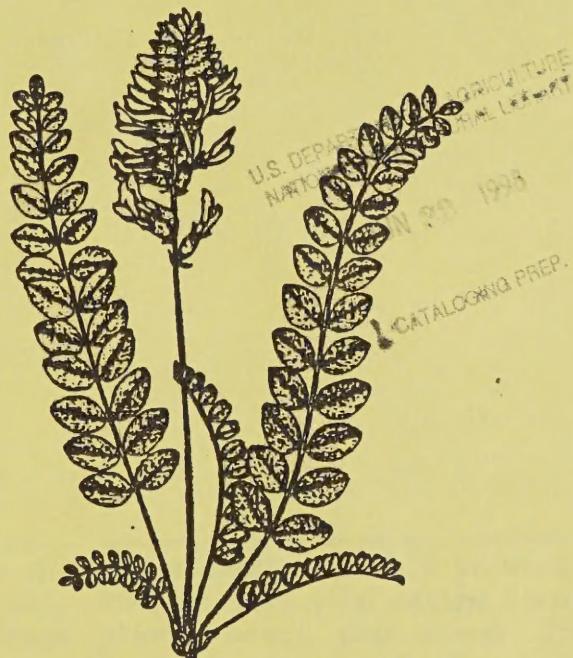
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Locoweeds, hvetches and Milkvetches

Richard H. Hart
Rangeland Scientist



Woolly locoweed



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Locoweed poisoning of livestock is one of the most widespread poisonous plant problems in the western US. It is difficult to estimate how much locoweeds cost the livestock industry, but it certainly runs into tens of millions of dollars every year.

"Loco" is Spanish for "crazy" and crazyweed is sometimes used as another name for some locoweeds. Locoweed acquired its name because animals that eat it behave strangely. Animals usually appear listless and depressed, but may become excited when stimulated by a sudden noise or movement. Other symptoms include a slow staggering gait, rough hair coat, loss of appetite and weight, muscular incoordination, and difficulty in eating and drinking in severe cases. Animals may eventually starve to death. Locoweed increases frequency of congestive heart failure in cattle at high altitudes. The greatest economic losses from loco are caused by reproductive problems, including fetal deformities, abortion, and temporary loss of fertility.

Locoweed poisoning is chronic. Livestock may graze loco for long periods before signs of poisoning become obvious, but signs may be detected quite early by the careful observer. Signs may appear as early as 2 weeks or as late as 60 days after animals begin to eat locoweed.

Animals usually begin eating locoweed when it is the only green feed available in winter or early spring. They usually stop eating loco when other forage plants start new green growth. However, animals will graze old, dry locoweed stalks remaining from previous years. Once animals begin eating loco, they may actively hunt for and eat it, especially if other forage is scarce or if they see other animals eating it.

Poisonvetches, very similar in appearance to locoweeds, accumulate selenium from selenium-

containing soils. Symptoms of chronic selenium poisoning include rough coat, lack of vitality, lameness caused by damage to joints, hair loss from mane and tail, loss of appetite, and weight loss. Acute poisoning causes abnormal movement and posture, watery diarrhea, labored breathing, collapse, and death. Acute selenium poisoning from poisonvetches is rare, because these plants have a disagreeable odor and are unpalatable to livestock.

Grazing management alone will not eliminate locoweed or selenium poisoning but it can help. Overstocking should be avoided. It may cause animals to graze plants they would not ordinarily graze, and in time may encourage invasion of rangeland by poisonous plants. Multi-pasture grazing systems let the stockman keep animals out of pastures containing large populations of poisonous plants during times when they are most likely to be grazed. Herbicides can be used to control small populations of locoweeds or poisonvetches, but usually are too expensive for treatment of large areas.

Locoweeds and poisonvetches are often confused with plants such as milkvetches, which are harmless or may be excellent forage. Locoweeds, poisonvetches and most milkvetches have pinnately compound leaves, with many small leaflets arranged on each side of a central midrib. They all have typical legume flowers, like the flowers of beans, peas, or alfalfa, usually white, blue or purple. The flowers are arranged in clusters of 10 to 50 or more flowers at the ends of erect stems.

Some milkvetches have simple leaves or leaves with only a few leaflets, and 1-10 flowers per cluster. These milkvetches are small and not likely to be confused with locoweeds or poisonvetches. Several other native plants in our area have pinnately compound leaves but are easily

separated from locoweeds and poisonvetches. Leadplants and prairieclovers have flowers arranged in long cylindrical heads. Vetches and vetchlings have tendrils at the ends of the midribs of their leaves.

Both leaves and flowering stems of our common locoweeds and crazyweeds arise directly from the ground, while leaves and flowers of poisonvetches and of most milkvetches are borne on erect stems. The keel of a Lambert or silky locoweed flower, formed by joining of two petals around the reproductive parts, has a noticeable beak on the end; the keel of woolly locoweed, poisonvetch and milkvetch flowers does not.

The following key and drawings will help you tell the locoweeds, poisonvetches and milkvetches apart.



Woolly loco flower



Lambert or silky loco flower

- A. Leaves and flowering stems arising from ground level (locoweeds).
 - B. Keel petal rounded; flowers red-purple..
Woolly locoweed (True loco, Texas loco)
 - B. Keel petal with sharp beak.
 - C. Flowers purple (occasionally white), beak 0.25-1 inch long.....Lambert locoweed (Purple loco)
 - C. Flowers white with purple-tipped keel, beak short.....Silky locoweed (White loco)
- A. Leaves attached to erect stems; flowering stems arising from tips or branches of leafy stems (milkvetches and poisonvetches).

- D. Leaves hairy or velvety on top.
 - E. Leaves hairy top and bottom, stems hairy; hairs up to 1/16" long with bulbous bases.....Drummond milkvetch
 - E. Leaves velvety top and bottom or bottom only, bases of hairs not bulbous.
 - F. Pods hairy, longer than wide....
Field milkvetch
 - F. Pods smooth.
 - G. Pods as wide as long..Ground plum milkvetch (Buffalo bean, ground plum)
 - G. Pods much longer than wide, beaked.....Canada milkvetch
 - D. Leaves smooth on top.
 - H. Flowers purple.
 - I. Pods hairy, erect....Prairie milkvetch (Standing milkvetch)
 - I. Pods smooth, pendulous, 2-grooved
Two-grooved poisonvetch (Two-grooved loco)
 - H. Flowers white to cream.
 - J. Pods smooth, up to 1" long, drooping.....Racemed poisonvetch (Creamy poisonvetch)
 - J. Pods hairy, less than 1" long.
 - K. Pods egg-shaped, clustered...
Cicer milkvetch
 - K. Pods elongated, spreading....
Flexile milkvetch

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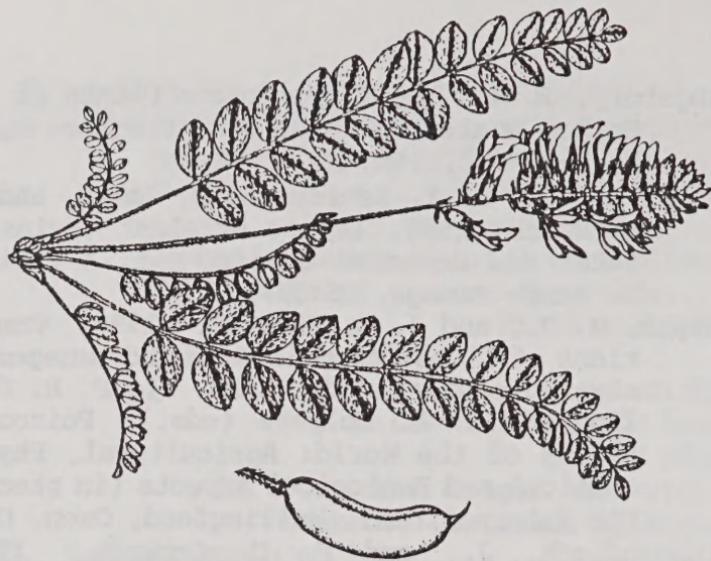
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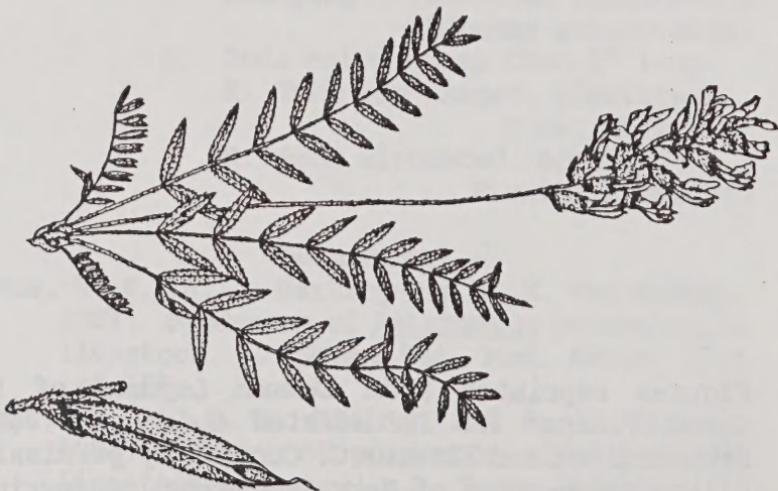
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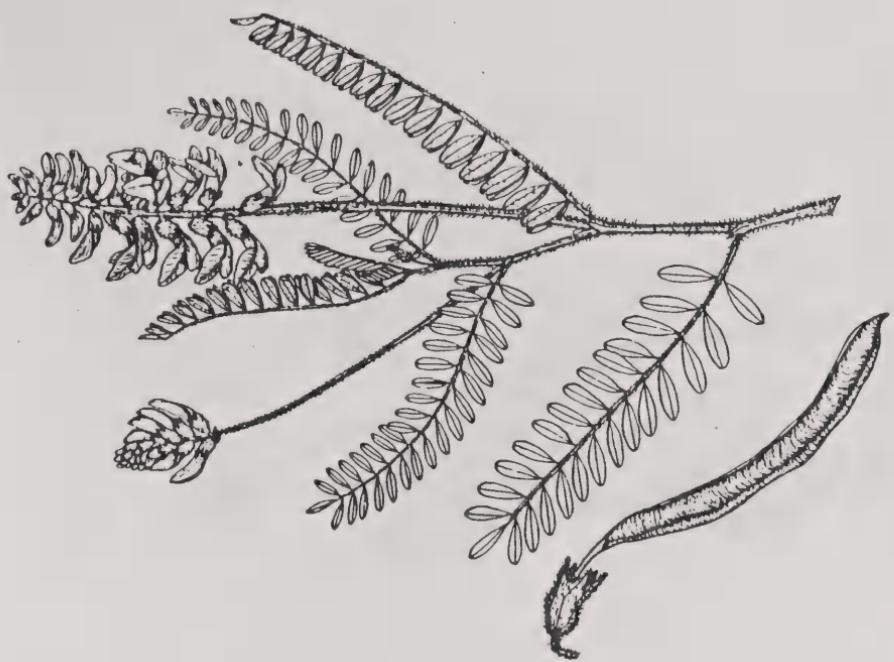
Woolly locoweed



Lambert locoweed

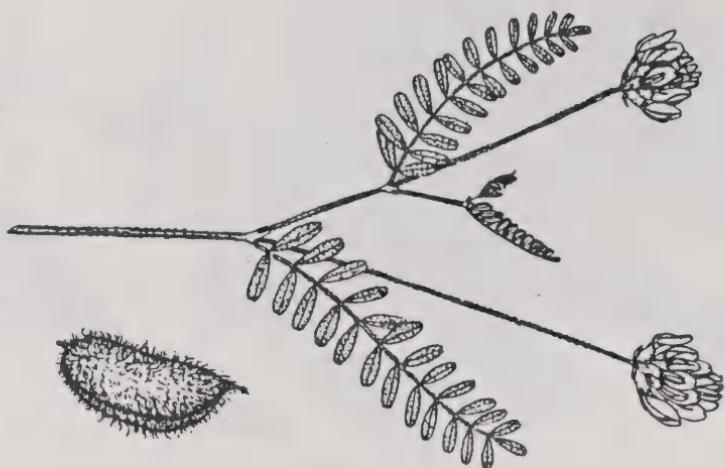


Drummond milkvetch

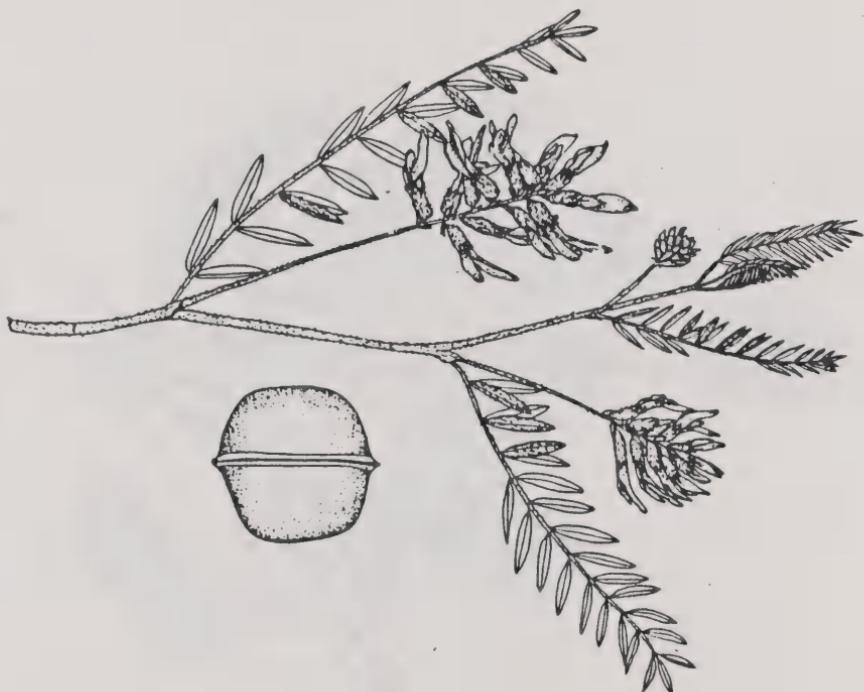


Silky locoweed

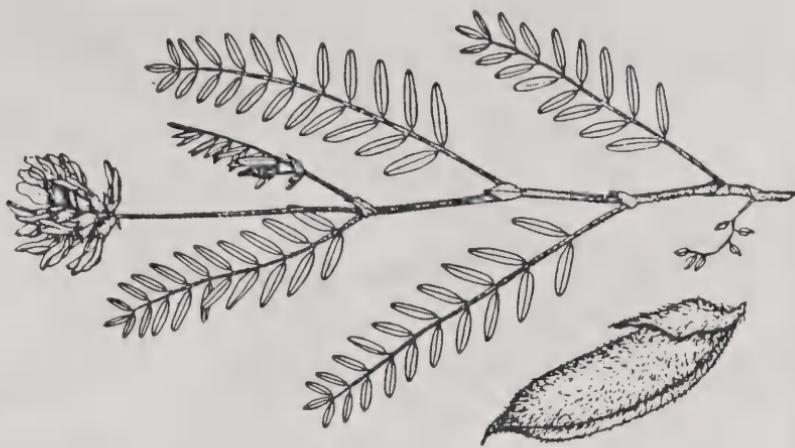
Field milkvetch



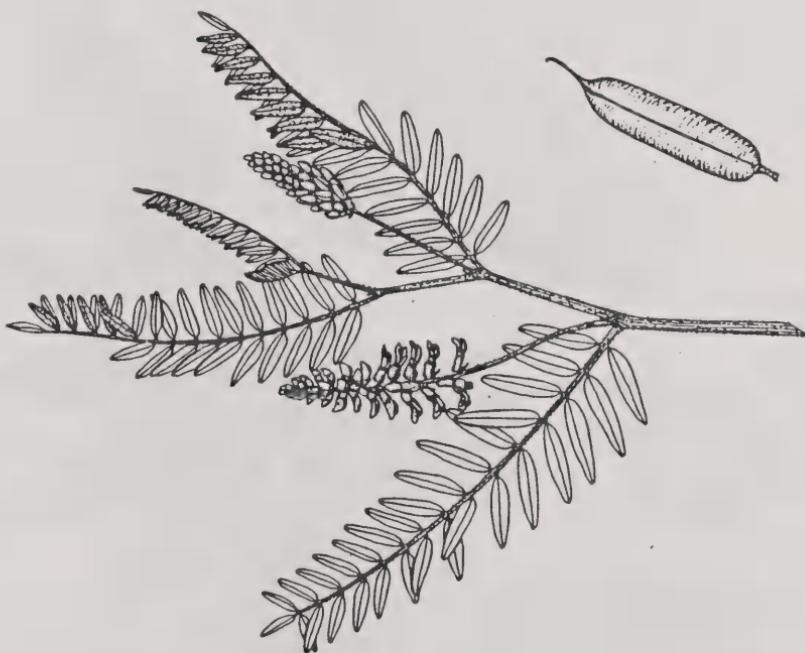
Groundplum milkvetch



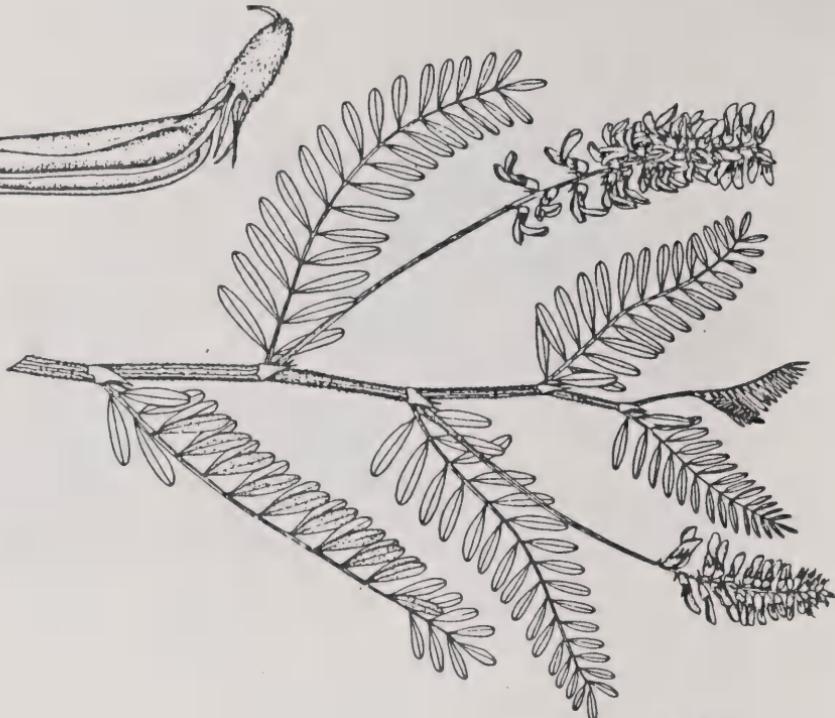
Prairie milkvetch



Canada milkvetch



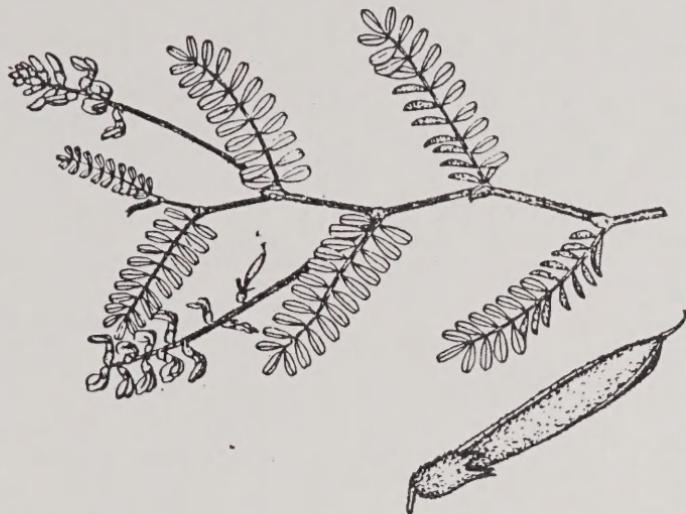
**Two-grooved
poisonvetch**



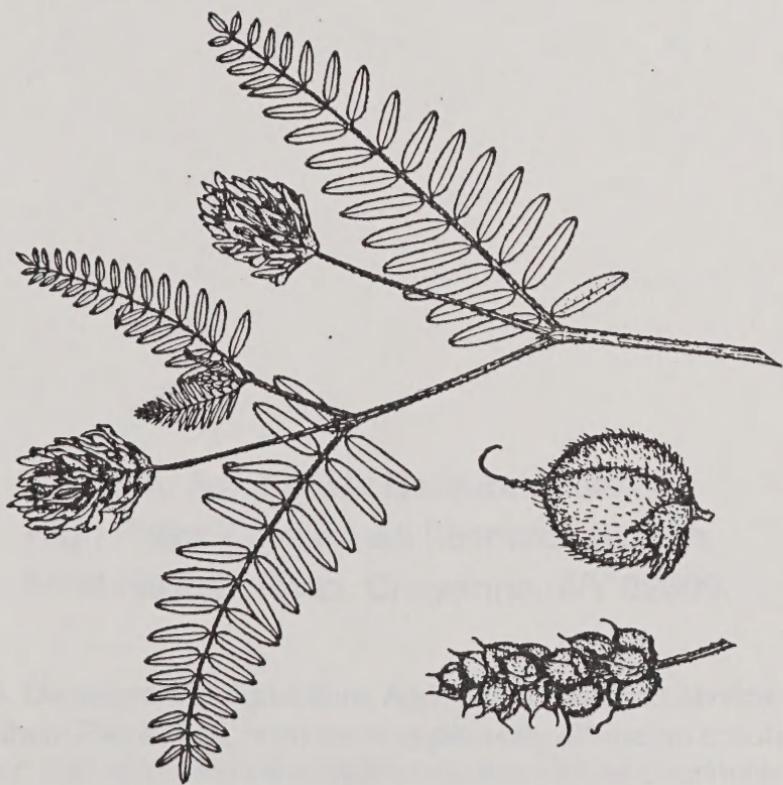
Racemed poisonvetch



Flexile milkvetch



Cicer milkvetch



Longwood
Botanical Gardens
Received with much
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